

Packard Bell



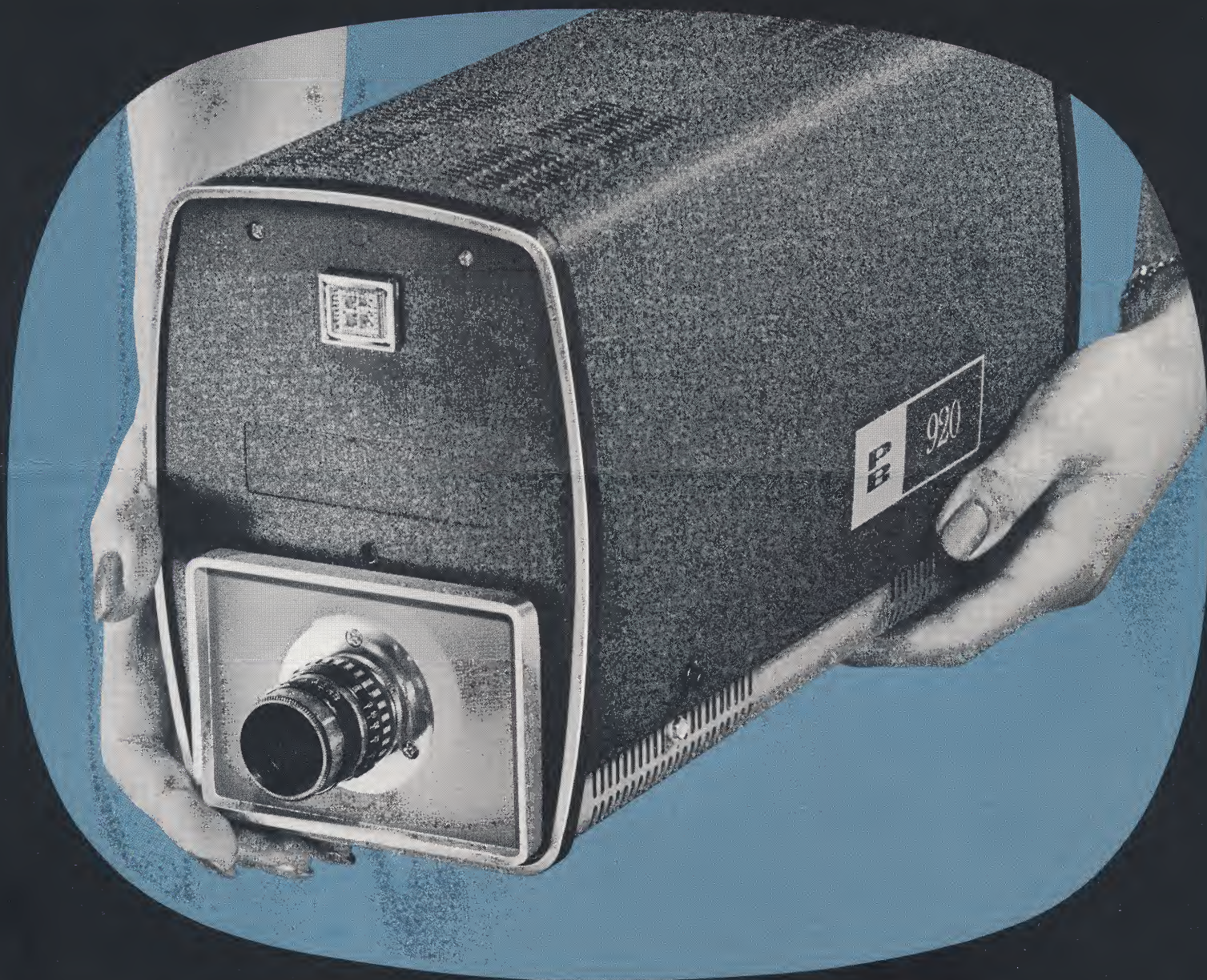
920

INDUSTRIAL  
COMMERCIAL • EDUCATIONAL

TV CAMERA

FULLY AUTOMATIC  
SELF-CONTAINED  
TRANSISTORIZED  
SIMPLE TO USE  
EASY TO MAINTAIN

*Studio Quality for \$779 • half the cost of comparable equipment*





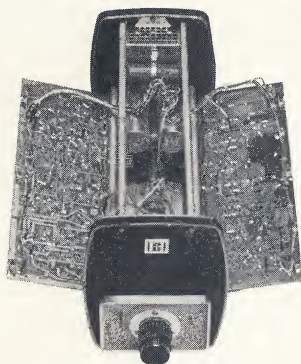
# DESIGN FEATURES

*Simplified for ease of  
operation & maintenance—*

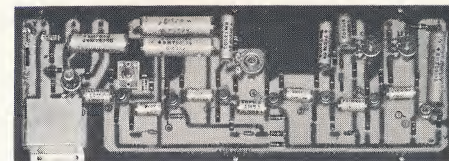
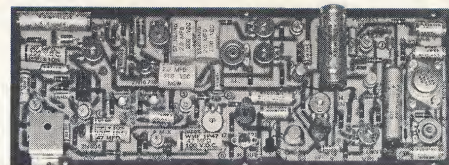
*Rugged, for extra  
reliability*



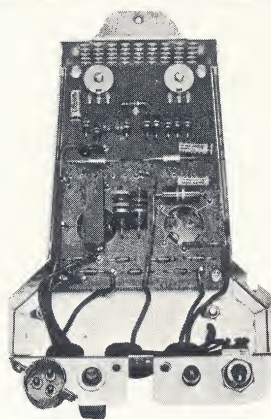
- Built-in automatic light control—assures best picture under varying light conditions, without adjustment.
- White peak clipper—eliminates “washout” of extreme highlights.
- 12 mc bandwidth assures minimum of 650 line resolution.
- Electronic vidicon protect-circuit—protects vidicon tube in case of sweep failure.
- Stable, high-gain, wide-band amplifier... no visible noise.
- Initial set-up controls easily accessible.
- Super-sensitive Class A vidicon tube and 25 mm F1.9 coated anastigmat lens are standard equipment.



**COMPLETELY MODULAR CONSTRUCTION.** Cover snaps off, circuit boards snap out. Zamak V (high tensile strength zinc alloy) die cast frames, stainless steel and aircraft alloys used throughout. Tough, durable finish applied to exterior. Note uncrowded components for easy access.



**CIRCUIT BOARDS ARE EXTRA-THICK** fiber glass epoxy. Only finest components used... at just 60% of rating; precision hand-soldered; reliability to spare. Plug-in transistors for easy replacement. Circuit-functions labeled on boards. Ample test points. Full information schematic diagram provided.



**REGULATED POWER SUPPLY** is built-in, assures performance when voltage drops as low as 105v; self-contained for easy access and removal.



**CLICK-ON CONTROL.** On-off switch is *only* external control; others built-in and accessible through adjustment ports... beyond reach of curious “dial twisters.” Rear focusing knob—gives sharp picture from 3 inches to infinity. Pilot light tells when camera is “on.” Easily set up; uses only 25 watts of standard 120v, 60 cycle power. Rear-mounted circuit breaker eliminates fuses.



# PERFORMANCE FEATURES

No other TV camera offers so many "studio quality" performance features at Packard Bell's low price. In fact, a comparable camera today costs twice as much. This economy is possible because Packard Bell has mastered efficient design and production techniques through many years of successful competition for military, commercial, and consumer electronic products and systems.

## OUTSTANDING PICTURE

**QUALITY** — **high resolution, accurate gray-scale reproduction, low distortion.** The PB920 transmits a picture with more than 650 lines of horizontal resolution, compared to home TV sets with a maximum of 300. The PB920's picture is exceptionally sharp and finely detailed... especially useful in the transmission of closely printed or written data. On the standard 10-step gray scale test pattern, the Packard Bell camera clearly delineates all 10 shades, providing smooth and accurate gradation of tonal values. Geometric linearity is excellent, too. Accurate and faithful proportions are held from center screen to the extreme edges... distortion is minimized.

**AUTOMATICALLY ADJUSTS TO WIDE LIGHT VARIATIONS** — **from 1 foot candle to bright sunlight.** Built-in Automatic Light Compensator provides — without adjustment — a full resolution picture under light conditions that may shift from 1 foot candle to 3000. Even with only  $\frac{1}{10}$  foot candle there will be a usable picture.

**CLICK ON SIMPLICITY** — Anyone can operate the PB920. All it takes is a click of the on-off switch. The rear focusing knob keeps picture sharp down to 3", and the excellent depth of field of the f1.9 coated lens means that continual focusing is normally unnecessary. Everything else is automatic and built-in for foolproof operation. There are no switches or knobs to tempt untrained personnel.

**ALL ANGLE VERSATILITY** — Unlike many cameras, the PB920 operates at any angle without damage to the vidicon. It can even be aimed straight up or straight down.

**NOISE-FREE — GLARE FREE** — The superbly engineered wide band video amplifier gives sharp, clean, solid pictures with no visible "noise." Precision regulated circuitry assures a stable picture regardless of temperature and line voltage variations. Special white peak clipper knocks out glare, brings out highlight and picture detail.

## EXTRA MAGNIFICATION

**RANGE** — The exclusive focusing mechanism provides area magnification up to 400:1, using a 21" monitor. No extension tubes are needed.

**RUGGED — RELIABLE** — Designed like a military system, the PB920 is ideal for tough environmental applications. Designed for continuous use, solid-state components won't overheat, assure long, maintenance-free life.

**FOR ADDED FLEXIBILITY** — The PB920 is designed for operation with an external EIA sync generator, if desired by the user. Ask your Packard Bell representative for detailed information about additional accessories.

## TYPICAL APPLICATIONS

Hundreds of users, including industrial giants like U. S. Steel, government agencies like the Atomic Energy Commission, business firms, universities and high schools, public service institutions, airports, restaurants, supermarkets and other retail stores... are using Packard Bell CCTV for a great variety of requirements. A brief listing of applications includes:

SECURITY SURVEILLANCE • COMPUTER READOUT • OBSERVATION OF "HOT" OR DANGEROUS OPERATIONS • PROCESS MONITORING • FLIGHT SCHEDULING • RUNWAY OBSERVATION • CUSTOMER SERVICE • TEACHING AID • GATE SUPERVISION • FACTORY INSPECTION • DATA TRANSMISSION • QUALITY CONTROL • VEHICLE DISPATCHING • STOCKROOM MONITORING • SHOPLIFTER SURVEILLANCE • MANAGEMENT COMMUNICATIONS • TRAFFIC CONTROL • WEATHER REPORTING • PAGING • PARKING LOT MONITORING.





**Packard Bell**



1920 SOUTH FIGUEROA ST., LOS ANGELES, CALIFORNIA 90007

*38 years of precision  
electronics for home, industry, government*

*Industrial • Commercial • Educational • Packard Bell Closed-Circuit TV*

## SPECIFICATIONS

### *PB-920 Camera*

#### ELECTRICAL

**SENSITIVITY:** Maximum sensitivity, usable picture at  $\frac{1}{4}$  foot candle with f1.9 lens, normal operational minimum 1 foot candle

**HORIZONTAL RESOLUTION:** 650 lines minimum center resolution  
**BANDWIDTH:** 12 megacycles

**AUTOMATIC LIGHT COMPENSATOR:** 3000:1 (1 foot candle to 3000 foot candles with less than 6 db video level change)

**GRAY SCALE:** 10 shades of gray

**OUTPUT:** 1 volt video, 0.4 volts sync negative (1.4 volts peak to peak), 75 $\Omega$  output impedance

**LINEARITY:** 2% vertical and horizontal over entire raster

**GEOMETRIC DISTORTION:** Less than 2%

**VIDICON PROTECTION:** Automatic protection against both horizontal and vertical sweep failure

**SYSTEM STANDARDS:** Horizontal frequency 15, 750 cps, 2:1 random interlace, 525 scan lines, provision for connecting standard broadcast EIA sync generator

**SIGNAL TO NOISE RATIO:** 40:1

**CAMERA GAIN:** 60,000:1

**SYNCHRONIZING PULSES:** Horizontal sync pulses continue through vertical blanking, sync free of video signal

**POWER SUPPLY:** Full transformer isolation, regulated output for all DC voltages. Primary of power transformer has push button reset circuit breaker protection

**INPUT POWER:** 120 (108-132) volts, 60 cps, 25 watts, 3-wire heavy-duty grounded AC cord with bayonet receptacle

#### CONTROLS

**INTERNAL: (UNDER COVER)** Video Amplifier: ALC fixed target, high peaking, video gain, white peak clipper, sync level  
Deflection Amplifier: H master osc. frequency, H blocking

osc. frequency, H size, H centering, V frequency, V blanking width, V linearity

**INTERNAL: (THROUGH REAR PLATE)** Beam, electrical focus

**EXTERNAL:** On-off switch, with pilot light, circuit breaker reset, optical focus knob

#### MECHANICAL

**SIZE:** Length — 14 $\frac{1}{8}$ " excluding lens

Width — 6 inches

Height — 8 inches

**WEIGHT:** 13 pounds

**MOUNTS:** Two  $\frac{1}{4}$ -20 threaded sockets, spaced 2 $\frac{1}{2}$  inches apart on bottom of camera

**LENS MOUNT:** Standard 16 mm "C" mount

**REAR FOCUS:** Vidicon assembly moves full inch for close-up and macro-photography without extension tubes, controlled by knob on back of camera

**STANDARD LENS:** 25 mm f1.9 Packard Bell coated TV lens — standard equipment, other interchangeable focal lengths and speeds available

**CIRCUITRY:** All-transistor except for vidicon and first video stage (nuvistor)

**CIRCUIT BOARDS:** Extra weight epoxy fiber glass, etched copper, all controls, test points, and transistors identified

**CONSTRUCTION:** Zamak V die castings, with stainless steel and aircraft aluminum alloy die-formed panels

**FINISH:** Fine black wrinkle and brushed stainless steel

#### ENVIRONMENTAL

**TEMPERATURE RANGE:** -10°C to 50°C

**HUMIDITY:** 95%

**ACOUSTICAL ENVIRONMENT:** To 140 db above 0.002 Dyne/Cm<sup>2</sup>

**HEAT RISE:** Less than 5°

Certified environmental specifications available where required.

*A Packard Bell representative will be pleased to discuss your application need in detail... and show you how Packard Bell Closed-Circuit Television can reduce your operating costs, increase efficiency.*

*The Packard Bell Model 920 TV Camera conforms to the provisions of the "Buy American Act".*